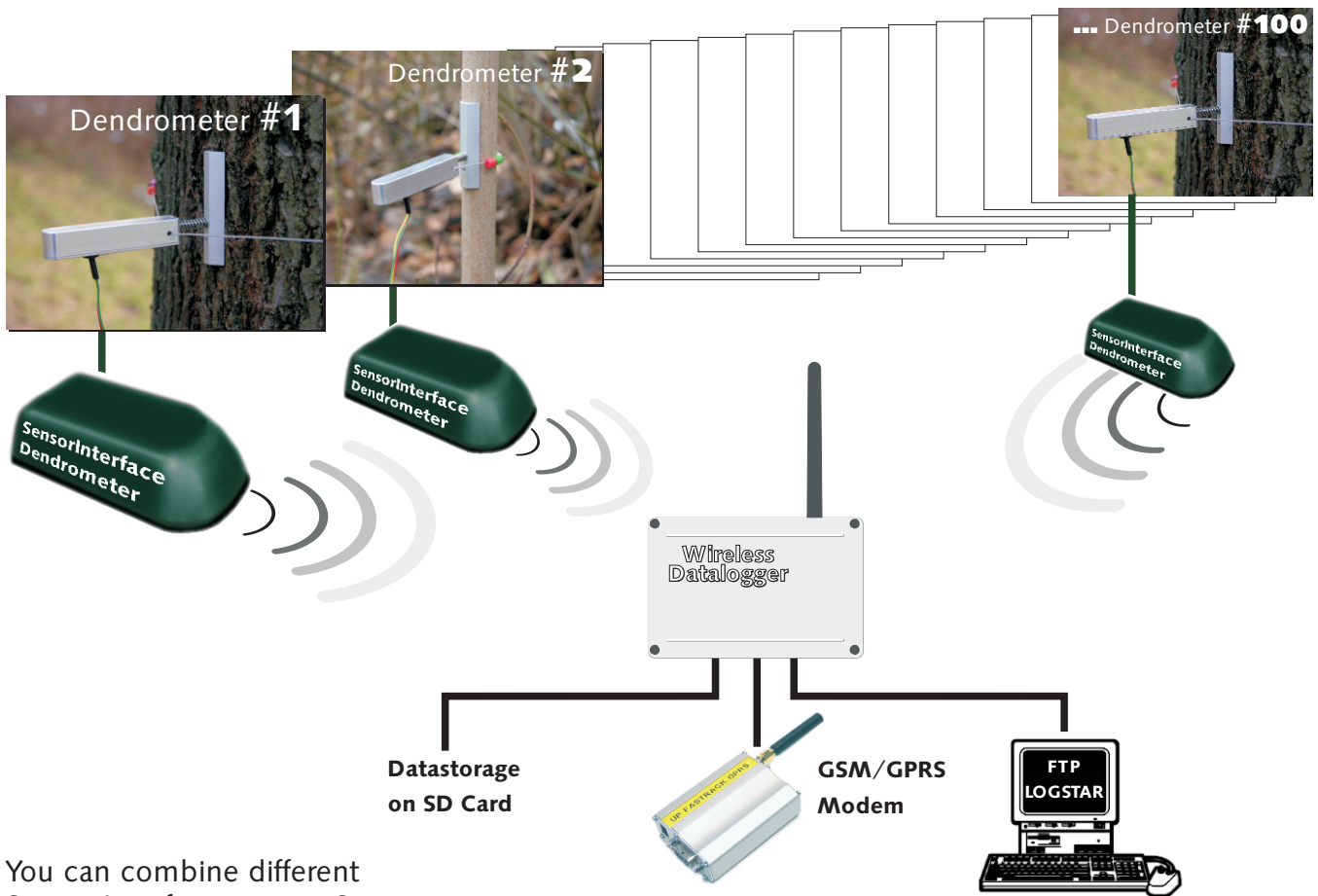


Umweltanalytische Produkte GmbH

Datalogger: Wireless Datalogging System



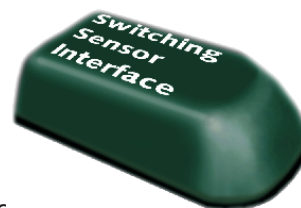
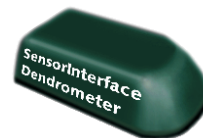
You can combine different Sensor Interfaces in one System

- Dendrometer (better 5µm Resolution)
- Temperature PT100, PT1000
- Rel. Humidity
- Status
- Counter
- Analogue Input 0-4V, 0-25mA

Switching Sensor Interface to switch power To sensors including additional battery for sensor power

- Soilmoisture ML2x

2 years typical lifetime of internal battery in Sensor Interface
IP65 housing, ambient temperature -20 C to 50 C
Storage up to 10 000 data in non-volatile memory, if WirelessLogger is temporarily not available.





WiDaSys

A Wireless Datalogger System



All **Wireless Datalogger System** consists of minimum one Sensor Interface and one base station. Each base station can collect data from up to 100 Sensor Interfaces. More than one base station can be networked to enlarge area of coverage.

A **Sensor Interface** is able to measure data from UP Dendrometer, PT100, PT100, 0-25mA analogue input, 0-4Vdc, Status and transmit these measured values to a base station using a secure wireless link. Measuring interval and transmit interval are configurable via configuration program. Each Sensor Interface can store up to 10.000 measurements if the base station is temporarily not available.

A Sensor Interface is powered with an internal battery with about 3 years lifetime. Spare batteries can be changed from the user himself.

The **Base station** stores all data on an integrated SD-card and/or send data automatically via GPRS to any specified ftp-server. Data download via GSM modem is also possible.

Using **UP Energybox** with integrated rechargeable battery, timer and optional GSM/GPRS Modem a full stand-alone outdoor setup is available.

The Wireless Datalogger System is working on 868 - 870 MHz Frequencies. In a free sight setup between base station and Sensor Interface a distance up to 1000m is possible, in forest area or inside greenhouses typically a distance of 50 to 100m is reached with good transmission quality, but a local test is always recommended.

The **Switching Sensor Interface** is able to warm-up analogue sensors, like soilmoisture measurements using ML2x probes, using an internal relays to switch sensor power. The housing of a Switching Sensor Interface is big enough for an additional sensor battery.

The configuration software is easy to use. All sensors can be named with friendly names to easy recognize them in your datasets.

New Sensor Interface can be added to a system without stop of the logging process.

Applications:

- Plantphysiology: Dendrometer + tree-temperature in forest area
- Hydrogeology: soilmoisture sensors
- Greenhouse sensors

Main Advantage: Easy installation because no cables are required between sensor and Wireless Datalogger.

Technical Data

Sensor Interface (SI_xxx)

Size : 80x60x23 mm

Battery lifetime: typical 3 year

SI_pot: Sensor Interface to measure dendrometer,

Resolution: better 5µm dendrometer value which is optimum to follow up diurnal changes (16bit)

SI_PT100: Sensor Interface to measure PT100 temperature sensors.

Resolution: 0.1°C , -50°C to 200°C

Ambient :

WiDa: Basestation with SD-card memory

Uv: 8-30Vdc,

radio standard: ETS 300 220,

frequency 868 – 870MHz (915MHz US)

Size: 130 x 180 x 60 mm